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Media Multiplexity in Entrepreneur-Mentor Relationships

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Abstract

This article examines how early stage entrepreneurs establish relationships with mentors through media multiplexity. Survey data were collected from high-tech entrepreneurs in the nascent business stage working in the New York City metropolitan area. Findings confirm that the use of multiple media in inter-organizational settings is important to entrepreneurship because multi-layered communication impacts resource acquisition. The findings regarding the antecedents of media multiplexity suggest that age similarity, ethnicity similarity, trust, and perceived value influence the adoption of media in a dyadic relationship. These findings help explain the motivations behind the use of multiple media in a resource-limited social context.

1. Introduction

Entrepreneurs face numerous challenges during early stages of forming a commercially-viable company. Many scholars recognize the importance of mentorship in helping early stage entrepreneurs gain access to information and resources [1]. Mentors are particularly important in the founding and development of new organizations because their knowledge, skills, and connections help the novice avoid costly and even fatal mistakes [2]. Through developing mentorship relationships, early stage entrepreneurs benefit from new knowledge and opportunity recognition, improved self-efficacy, new connections, and even increased profitability [3].

Notable prior research examined how technologies are used within organizations to serve employees' communication and work needs [4]. Scant research, however, has examined how multiple media channels can be used in combination to support knowledge-seeking needs with external stakeholders such as mentors. Communication between early stage entrepreneurs and mentors may occur in a variety of forms, such as face-to-face, email, video chat, instant messaging, and social networking sites. Media choice is one significant factor influencing the formation of individual social networks and the knowledge-sharing processes in organizations [5]. Despite extensive work on mentor-entrepreneur relations, little research has focused on identifying the determinants of entrepreneurs' media choices and how those media choice affects the processes and outcomes that entrepreneurs experience or achieve. There have been few attempts to detail how entrepreneurs navigate multiplex channels based on social relationships, personal characteristics and motives, as well as contextual factors.

Relational multiplexity provides a quantitative appraisal of the depth and significance of entrepreneurs' social ties [6]. Recent work calls for further research exploring how to associate multiplexity with more diverse performance variables other than profitability [7]. There still exists a gap in research addressing how relational multiplexity could be achieved communicatively. Some studies contend that intense social interaction lead to relational multiplexity as it promotes the development of common knowledge [8] and makes both parties more comfortable with each other's competence and reliability in knowledge exchange [9]. But focusing on social interaction in general overlooks the subtlety of information exchange enabled by different media channels.

This study extends the literature by exploring the antecedents of media multiplexity between entrepreneurs and mentors, as well as the link between media multiplexity and relational multiplexity. While media multiplexity has been related to tie strength, this study examines this association in entrepreneurial context to explore how media use affects resource acquisition. A focus on communication in obtaining knowledge will shed light on how entrepreneurs navigate a nascent and uncertain environment.

Using data collected from early stage entrepreneurs in the high-tech sectors in the New York City metropolitan area, this study demonstrates the importance of integrating multiple media channels to access diverse resources and establish multi-layered relationships. In addition, the findings offer insights on the influences of gender, age, ethnicity, and social factors on media multiplexity. The closing sections of this article set forth implications for future research.

2. Entrepreneurial mentorship

In the entrepreneurial context, mentor functions are different from those typical organizations, mainly because mentors have no hierarchical positions above early stage entrepreneurs and the protégés are typically business owners [10]. In addition to traditional career development and psychosocial support functions, mentors helps early stage entrepreneurs overcome various obstacles, such as lack of insider information about the field, and lack of connections to resource providers [2]. There are six functions that mentors

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perform in this capacity: career development, psychosocial support, skill enhancement, socialization, resource broker, and investor, which are introduced below.

Early stage entrepreneurs' limited information about entrepreneurship compared to other types of careers has emerged as one of the key barriers for entrance [11]. Therefore, career development support is less about helping entrepreneurs climb the organizational ladder and more about helping entrepreneurs get a more comprehensive understanding of possible entrepreneurial career paths.

Psychosocial functions, which include confirmation, counseling, friendship, and inspiration, constitute another key locus of support present in mentorship [12]. In some cases, the provision of psychosocial support is not dyadic nor interactive, which means that entrepreneurs might perceive a mentor as a role model based on their own perceptions without the mentor's awareness or involvement [13]. Indeed, the mere presence of a mentor conveys a sense of companionship when entrepreneurs manage the uncertainty arising from their new venture.

Entrepreneurship differs in that there is no available institutionalized knowledge to help early stage entrepreneurs identify the relevant skills or develop these skills in advance [2]. Scholars have linked a wide range of special skills to entrepreneurship, including abstract reasoning, synthesizing divergent ideas, creative framing, improvisation, observation, questioning and experimentation [14]. Mentors with substantial experience can guide early stage entrepreneurs in acquiring tacit knowledge of the profession, such as how to communicate ideas to stakeholders, build initial teams, and navigate external investment.

Mentors also provide socialization for early stage entrepreneurs, helping them "internalize behavioral norms and standards and form a sense of identity and commitment" to the field" [15]. Throughout the socializing process, mentors provide insider information and subtleties of local politics and power [16]. Therefore, the transfer of industry specific information helps entrepreneurs adapt to the new business environment.

Even with sufficient industry specific knowledge, the lack of endorsement from social ties can be a barrier for early stage entrepreneurs to enter the startup ecosystem [17]. New organizations are more likely to secure investments and grow their customer base when they leverage their relationships with third parties [18]. These social connections play a crucial role in early stage entrepreneurs' access to information and resources for setting up a business venture. Therefore, mentors serve as resource brokers to bridge the resources.

The evolution of mentorship may benefit entrepreneurs in additional ways. Mentors are sometimes expected to be investors when the business is scaling up [19]. The mentor role may also come as a consequence of the establishment of an investment relationship [20]. Unlike in traditional organizational contexts where mentorship usually comes with an expiry date [21], mentor-entrepreneur relationship in the new venture setting can evolve into a more complex interaction beyond initial expectations.

3. Relational multiplexity and media multiplexity

Relational multiplexity is the extent to which two entities (e.g. individuals, organizations, etc.) are joined by differentiated resource exchanges [22]. For example, within a single relationship between a vendor and an entrepreneurial firm, there could be exchanges of market information, technical knowledge, or capital in addition to the initial transfer of materials [23]. Each content exchange tends to reinforce the other, thus augmenting the overall strength of the relationship [12]. Relational multiplexity theory guides a quantitative appraisal of the depth and significance of entrepreneurs' social ties.

Multiple layers of resource exchange between the entrepreneur and the partner increase the inter-organizational independence as well as the value of the relationship, until the point at which the relationship reaches saturation and the entrepreneurs need to find new contacts for additional resources [24]. Some studies contend that intense social interaction lead to relational multiplexity as it makes both parties more comfortable with each other's competence and reliability in knowledge exchange [9]. But focusing on social interaction in general overlooks the subtlety of information exchange enabled by different media channels. Thus, there is a gap in research addressing how relational multiplexity could be achieved communicatively.

Media multiplexity theory highlighted that many interpersonal partners use multiple media to maintain their relationship [25]. The key argument of media multiplexity is that channel use is driven by relational characteristics such as tie strength, so that stronger ties tend to incorporate more media into their relationship [26]. Media multiplexity also allows the transferring of more accurate knowledge as the layering of each additional media will increase the richness of information [27]. Moreover, media multiplexity facilitates the development of shared understanding, which is important for two parties to collectively solve

problems and generate ideas [28]. Multiple media use enhances the quality and quantity of information.

Media multiplexity has been associated with multitasking behaviors and increased mutual responsiveness between communication partners [29]. Receiving information through multiple media channels also affects the way one perceives information and influences the time one spends on communication-related activities [30]. Therefore, it is hypothesized that:

> H_1. The formation of multiplex media ties between entrepreneurs and mentors is positively associated with relational multiplexity.

4. Antecedents of media multiplexity in entrepreneur-mentor relationships

The following section delineates the impacts of individual differences and social factors in influencing the adoption of media for relationship development.

4.1. The impacts of gender, age and ethnicity

Bounded rationality suggests that entrepreneurs with limited social capital tend to rely on easily accessible information to startup their businesses [31]. Connecting with mentors who share similar characteristics with them will increase the opportunities of building stable ties [32]. The following sections discuss three types of homophily – gender, age, and ethnicity – that are likely to influence early stage entrepreneurs' communication patterns.

4.1.1. Age and media use. Prior studies showed that age is among the strongest predictors of close friendships [33]. Although age differences are considered as a characteristic of mentoring relationships in some studies, scholars question the assumption that the 'parent-child' dynamic is conductive to communication and relationship building [34]. Research has shown that people in different age groups have different media repertoire and use media differently [35]. We argue that early stage entrepreneurs will use fewer media channels to engage with mentors of different age groups. Therefore, it is hypothesized that:

> H_2. Age dissimilarity is negatively associated with the formation of multiplex media ties between entrepreneurs and mentors.

4.1.2. Gender and media use. The underlying mechanism of gender-based interaction is the distinct values, beliefs and communication patterns of males and females [36]. Female workers' behaviors have been found to be more socially-oriented than males': they tend to emphasize caring, listening, and nurturing at the workplace [37]. Much of the reasoning behind gender homogeneity in mentorship is that a mentor with the same sex is more ready to provide a sense of acceptance and confirmation to the protégé and to serve as a role model [21]. In alignment with these findings, it is expected that gender dissimilarity will play a role in reducing entrepreneurs' motivation to communicate and discouraging entrepreneurs from being engaging. The focus here is on the potential negative impact of cross-gender mentoring dyads on effective knowledge exchange based on prior literature. Therefore, it is hypothesized that:

> H_3. Gender dissimilarity is negatively associated with the formation of multiplex media ties between entrepreneurs and mentors.

4.1.3. Ethnicity and media use. Ethnic-based homophily has been shown to function between entrepreneurs and investors [38]. This is based on the premise that socially proximate people have lower communication costs [39]. Following the Kauffman Foundation [40], ethnicity is broadly categorized into four groups: White, Black/African American, Asian, and Hispanic/Latino. Large ethnic disparities exist in enterprise ownership [41], access to financial capital [42], and awareness of markets [43]. Large ethnic disparities exist in access to financial capital [42] and awareness of markets [43]. According to the 2017 Economic Census, minority-owned businesses account for only 31.4 percent of all businesses in New York City [44]. The underrepresentation of minority entrepreneurs results in less opportunity identification, less motivation to start a business, and less propensity for these entrepreneurs to compete in industries with high entry barriers [45]. The disparity in access to funding and expertise among ethnic groups thus serves as a barrier to effective communication and knowledge exchange. Therefore, it is expected that entrepreneurs are more likely to use more media channels to communicate with same-ethnicity mentors.

> H_4. Ethnicity dissimilarity is negatively associated with the formation of multiplex media ties between entrepreneurs and mentors.

4.2. Trust and multiplexity

Trust indicates relationship quality and it encourages knowledge exchange by increasing knowledge sources' willingness to share [46]. In general, trust mitigates the risk of communication and smooths knowledge transfer. Here we focus on the benevolence dimension of trust as indicated by Ganesan and Hess [47]. The benevolence of a trusted partner reflects the degree to which that partner's "concern and care" exceed a merely "egocentric profit motive" [48]. The enhanced relationship commitment leads to the focal partner's desire to develop a stable relationship and a willingness to go beyond the costs to maintain the relationship [49]. Therefore, the relationship between trust and multiplexity is hypothesized as follows:

> H_5. Trust is positively associated with the formation of multiplex media ties between entrepreneurs and mentors.

4.3. Perceived value and multiplexity

Perceived value is the expected quality and reliability of information given by the focal partner [50]. This concept focuses on the partner characteristics such as task-specific competencies, reliability on the advice given, and predictability in terms of collaborative behaviors [47]. Both expectancy theory and social exchange theory imply that perceived value influences communication behaviors. Expectancy theory proposes that individuals are motivated to act based on their perceptions that there is a positive correlation between efforts and benefits [51]. Social exchange theory posits that individuals evaluate the investment costs of their participation in relationship to the returns they receive [52]. Most studies have found that higher perceived expertise or value of certain members makes individuals the target of advice seeking [53]. The perspective taken in this article is aligned: it is expected that entrepreneurs will engage in a wider range of communication activities with mentors having higher perceived value and increase the exchange of resources to maximize their benefits. Therefore, it is hypothesized that:

> H_6. The perceived value of mentors is positively associated with the formation of multiplex media ties between entrepreneurs and mentors.

4.4. Social embeddedness and multiplexity

Social embeddedness has long been argued as a predictor of cooperation and communication effectiveness [54]. For example, Chandler and Hanks [55] found that most team members have prior connections, such as belonging to the same family or having worked together previously. For some, social embeddedness refers to the number of connections that two individuals share in a relationship [56]. Other scholars use social embeddedness to suggest the shared affiliations – being members of the industry association, from the same academic institutions, or working at the same company [57]. This study argues that both affiliations and common contacts comprise the social embeddedness between early stage entrepreneurs and mentors.

One assumption of social embeddedness is the principal of familiarity, which asserts that "people who associate with one another, under certain conditions, become more likely to continue the association subsequently in other circumstances [58]." Another assumption of social embeddedness is that it enables mutually beneficial relationships as noncooperative behaviors will be known quickly in the whole network [54]. In general, social embeddedness stabilizes relationships and facilitates the generation of new ideas. Therefore, it is hypothesized that:

> H_7. The social embeddedness is positively associated with the formation of multiplex media ties between entrepreneurs and mentors.

5. Data and methods

The empirical context of this study is constituted by the high-tech sectors in the New York City metropolitan area. NYC's technology ecosystem had more than 7000 startups as of the end of 2017, provides more than 326,000 technology jobs and it is ranked second in global startup ecosystems [59].

The survey data were collected between September and October 2018 using three formats: the first option was an online survey administered through the Qualtrics survey software; the second option was an offline survey collected on a tablet, and the third option was a paper survey, which was presented to participants in person. The three surveys were identical in content but with paper survey the researcher prepared two printed versions for the branching question "Do you have a mentor who gives you advice about your startup?" In the online survey or the survey on tablet, people who answer "Yes" were directed to a section asking them to think about one mentor who acted as an important source of professional advice for their startups. For those who answer "No" or "Not sure," they were directed to a section asking them to think about one person instead

of one mentor. In the paper survey format, the researcher directly asked this question at the beginning to determine which version to administer.

Survey participants were drawn from three sources. First, recruitment information was posted in a wide range of startup-related online communities across multiple digital platforms, such as Meetups and Facebook groups. The second channel used to identify target respondents was LinkedIn, which is a professional social networking site that reaches over 433 million global users. The third channel was through in person recruitment at tech meetups, conferences, co-working space and university labs.

Screening questions were included to recruit participants in nascent business stage who founded a high-tech company in the period 2014 to 2018 or who had been active in trying to start a tech-related business in the past 12 months. The survey questionnaire included questions about participants' use of media channels, engagement with their mentors, and mentor information. Demographic and business-related questions were included. There were 80 respondents completed all the questions in the survey.

5.1. Variables and measures

Media multiplexity measure was adapted from the media channels in the work of Haythornthwaite [60] as well as the media relevant to interpersonal communication in business context [61]. The media platforms include face-to-face meetings, video chat (e.g. Skype), phone calls, emails, social media (e.g. Twitter), instant/text messaging (e.g. WhatsApp), collaboration tool (e.g. Slack) and other. If participants selected "other," they were asked to write down the name of the channels. The number of channels were aggregated to a composite score as a count variable for statistical analysis.

For the measure of relational multiplexity, participants were asked "What types of resources have you gained accessed to as a result of your relationship with this mentor/knowledge source?" The six mentor functions in entrepreneurial context were listed. The number of knowledge types were aggregated to a composite score for statistical analysis.

Trust measure used the four-item benevolence-based trust scale Johnson, Cullen [50], which included statements such as "I assume that he or she would always look out for my interest" and "I assume that he or she would go out of his or her way to make sure I was not damaged or harmed." All of the four items were assessed using a 5-point Likert scale.

Perceived value was adapted from the competence-based trust scale used by Levin and Cross [62] and the credibility-based trust scale Johnson, Cullen [50]. This measure included four statements such as "I know that he or she is capable and competent" and "He or she is always frank and truthful in its dealings with us." All of the four items were assessed using a 5-point Likert scale.

Social embeddedness measure was adapted from the work of Aral and Walker [54] and Easley and Kleinberg [56]. Respondents are asked to answer Yes or No to five statements such as "My mentor and I have common friends" and "My mentor and I are from the same academic institutions." The number of Yes answers were aggregated to a composite score for statistical analysis.

Mentor age groups were coded as 1 through 5, representing 18-25, 26-35, 36-45, 46-64, and 65 or older. In order to create a composite score of age similarity, the researcher first computed the median in each age group, for example, 21.5 for age 18-25 or 55 for age 46-64. Then the absolute number of the difference between entrepreneur's age and the mentor's age median was determined. Finally, the ratio of these two numbers was used as the measurement of age dissimilarity.

Respondents were asked to report whether they had the same gender as their mentor, with 1=yes, 2=no, and 3= not sure. Gender composition was created with a dummy-coded variable with "1" representing homogeneous gender dyads and "2" representing heterogenous gender dyads.

The racial categories of entrepreneurs were broadly grouped into African American, Asian, Hispanic, and White. Ethnic composition was studied with a dummy-coded variable with "1" representing homogeneous ethnic groups and "2" representing heterogenous age groups.

Three socio-demographic variables were included as control variables in the analysis: gender, age, education. In addition to socio-demographic variables, organizational size and total capital raised to date were also included as control variables.

6. Results

Descriptive analysis (see Table 1) demonstrated that using three communication channels (31.7%) was the most common practice between entrepreneur and mentor. About half of the entrepreneurs indicated that they used four or more communication channels to engage with mentors. Less than 20% of the respondents used two channels or less for communication. More than 96% of the respondents received more than one type of resources from mentorship relationships. About 60% of the respondents gained four or more types of resources from their mentors.

Table 1. Number of communication channels used & types of resources exchanged by entrepreneur and mentor

Number of media used	Percentage of respondents (*n*=80)
1	7.3%
2	12.2%
3	31.7%
4	20.7%
5	14.6%
6	9.8%
7	2.4%
Types of resources gained	**Percentage of respondents (*n*=80)**
1	3.7%
2	14.8%
3	22.2%
4	29.6%
5	21.0%
6	8.6%

Descriptive data on media use demonstrated that meeting face-to-face, email, and phone calls were the three main channels for entrepreneurs to engage with mentors. Instant/text messaging platforms such as WhatsApp and social media such as Twitter were similar in usage. Video chat and collaboration tool such as Slack were less popular between entrepreneurs and mentors. According to the descriptive data on resource exchange, referral to other contacts or resources was listed by approximately 86% of the respondents as the benefit from mentorship relationship. It showed that network brokerage function was the most valued feature of mentors in an entrepreneurial context. Over 60% of the respondents listed social support, general industry information, specific business skills, and career advice as the resources they gained from their mentor. Approximately 38% of the respondents also indicated that their mentor plays an investor role for their businesses. These data corresponded to previous findings that entrepreneurs regard advice and investment as intertwined functions of mentors.

A sequential linear regression was performed to examine how relational multiplexity was predicted based on media multiplexity, while controlling for initial differences in gender, age, education, organizational size and total capital raised. H_1 stated that the more communication channels entrepreneurs used to engage with mentors, the more types of resources they will gain from the mentorship. In other words, an increase in media multiplexity is predicted to be positively associated with the development of relational multiplexity. Model 2 ($F(6, 73) = 5.33$, $p<.001$, $R^2=.31$, $R^2_{Adjusted}=.28$) shows a statistically significant increase in R^2 compared to Model 1, suggesting that Model 2 has a better overall fit than Model 1. Table 2 shows the unstandardized regression coefficients (B) and intercept, R^2 and adjusted R^2 after entry of all the independent variables in two steps.

Table 2. Sequential multiple regression analyses predicting relational multiplexity (N=80)

Variable	Model 1	Model 2
Org size	-.16	-.14
Total capital raised	.14	.10
Education	-.11	-.14
Age	-.03	-.12
Gender	-.49	-.09
Media multiplexity		.49***
$R^2_{Adjusted}$	-	.28
ΔR^2	-	.24
R^2	.07	31

*$p<.05$, **$p<.01$, ***$p<.001$

The R^2 change for Model 2 was .24. There was a positive and statistically significant relationship between media multiplexity and relational multiplexity (B=.49, $p<.001$), indicating that the greater the number of media channels entrepreneurs use to communicate with mentors, the more diverse the resources they gain from the relationship. This was consistent with the assumption that medial multiplexity promotes the development of multiplex relationships. Therefore, H_1 was supported.

Sequential linear regression was then performed to see how well media multiplexity could be predicted based on variables of demographic similarity, proximity, trust, perceived value, and social embeddedness. Table 3 shows the summary.

Table 3. Sequential multiple regression analyses predicting media multiplexity (N=80)

Variable	Model 1	Model 2
Org size	.00	-.05
Total capital raised	.11	.06
Education	.24	.18
Age	-.46*	-.08**
Gender	-.1.02*	-.81
Age dissimilarity		-.92*
Gender dissimilarity		.04
Ethnicity dissimilarity		-.71*
Trust		.83**
Perceived value		-.94**
Social embeddedness		-.17
$R^2_{Adjusted}$	-	.29
ΔR^2	-	.22
R^2	.12	.34

*p<.05, **p<.01, ***p<.001

Model 2 (F(5, 69) =2.69, p<.01, R^2=.34, $R^2_{Adjusted}$=.29) shows a statistically significant increase in R^2 compared to Model 1, suggesting that Model 2 had a better overall fit than Model 1. The R^2 change for Model 2 was .22. H_2 argued that there is a negative and significant relationship between age dissimilarity and media multiplexity. The result shows that B= -.92, p<.05, indicating that the less difference between entrepreneur and mentor in age, the more likely they employ multiple communication channels for interaction. Thus, H_2 was supported. Next, H_3 stated that gender dissimilarity negatively predicts media multiplexity. This hypothesis was not supported as B=.04, p>.05, suggesting no significant relationship between these two variables. Following this, H_4 argued that ethnicity dissimilarity also negatively predicts media multiplexity. Results show that B=-.71, p<.05, revealing that entrepreneur use fewer media channels to communicate with mentor of different ethnicity. Thus, H_4 was supported.

Subsequently, H_5 stated that entrepreneurs will use more media channels to communicate when they have higher level of trust with the mentor. The result (B=.83, p<.01) supports this hypothesis. H_6 predicted that perceived value is associated with media multiplexity. The results (B=-.94, p<.01) show that this hypothesis was not supported. Contrary to our prediction, entrepreneurs tend to use fewer media channels to engage with mentor when the perceived value is high. H_7 argued that when entrepreneur and mentor have more layers of social relationships, they will use more media channels. The result does not support this hypothesis, B=-.17, p>.05. This result indicates that the layers of social circles, including affiliations and mutual connections, was not a significant predictor of media use.

7. Discussion

One outcome of multiplex media use between entrepreneurs and mentors was relational multiplexity. Having a greater number of multiplex relationships signals that early stage entrepreneurs are in a better position to leverage trust in the recruitment and organization of resources [63]. The findings from this research demonstrate that a combination of media types could lead to access to more diverse resources, although it was noted in prior studies that people's total channel use remains constant so that media types compete with each other for resources [64].

A set of demographic factors, social factors, and geographic factors were tested for their prediction power on media multiplexity. The findings indicate that entrepreneurs tend to use more media channels to engage with mentors when the age difference is smaller and when they have the same ethnic background. Gender was not found to be significantly related to media multiplexity. Out of the 80 responses collected, 38% (n = 30) of the entrepreneurs indicated that their mentors were of opposite gender. In particular, about 70% (n = 21) of the cross-gender dyads in our data featured a female entrepreneur and a male mentor. The lack of significance for gender could be potentially explained by entrepreneurs' motivation to intentionally enlarge social circles by engaging with different gender mentors. It is also possible that there was not enough variance in our small sample size.

Benevolence-based trust between entrepreneur and mentor was found to be positively associated with media multiplexity. With higher levels of trust, entrepreneurs can be more comfortable establishing additional channels or switching channels for knowledge-seeking. The perceived value of mentor--was found to be negatively associated with media multiplexity. This finding means that if an entrepreneur perceives a mentor as highly valuable, he or she will employ fewer communication channels in approaching the mentor. This result runs counter to the conventional view in the intra-organizational context that higher perceived value of certain members makes individuals the target of advice seeking [53].

8. Implications and future research

The following summarizes the implications of our research and provides guidance for future studies. The results on age similarity highlighted the significance of establishing peer mentorship relationships among early-stage entrepreneurs and using community-based platforms for knowledge-seeking. Interactions between entrepreneurs, including those interactions that encourage the discussion, investigation, and evaluation of entrepreneurial ideas, are critical for product innovation [65]. Peer mentorship enables early stage entrepreneurs to pursue knowledge-seeking in a more secure and supportive social environment. The structurally equivalent positions among entrepreneurs augment their knowledge-seeking from each other.

Previous research in the corporate context has suggested that same-gender mentoring dyads achieve better outcomes than cross-gender dyads [66]. However, the impact of gender on mentoring relationships and resource acquisition might be different in the entrepreneurial context. Considering that media multiplexity predicts relational multiplexity, future research should explore if cross-gender mentoring could lead to more effective resource exchange.

Mutual trust increases confidence in each other's good will and flexibility so that people can enjoy broader scope of learning and risk taking [8]. With higher levels of trust, entrepreneurs can be more comfortable establishing additional channels or switching channels for knowledge-seeking. Indeed, it is not the frequency of communication but both parties' perception of a flexible relationship that enhance the quality of their interactions.

Perceived value of knowledge source is particularly relevant in knowledge search process [67]. Our findings suggest that entrepreneurs use fewer medial channels when engaging mentors with perceived high competencies and advice reliability. However, using fewer media channels cannot be simply interpreted as entrepreneurs' lacking of motivation to seek knowledge. Entrepreneurs' engagement with well-connected mentors tends to be strategic with concerns about revealing negative information to them. When people connect on social media, they learn about each other's interests and values, as well as their engagement with people from diverse contexts in their lives, including family and friends. Online media offers entrepreneurs less control in managing their tone and presentation to maintain a consistent and positive image. Entrepreneurs might therefore consolidate the use of media channels with mentors for managing impressions. Although the hypothesis was not supported, the findings point to an interesting topic for further investigation.

More research is needed to better understand media use in entrepreneurial contexts. One future direction would be to explore how entrepreneurs engage with people with higher social status or power. The findings of this article reveal that there might be potential explanation to better understanding media use in entrepreneurial context. In addition, the specific mechanisms that give rise to the benefit of using mix media are unable to be examined in detail here, but deserve attention in future empirical investigations. Researchers should conduct more detailed analyses of the strategic media use that are more closely associated desirable entrepreneurial outcomes.

9. Limitation

The statistical power of the quantitative study in this article is limited due to the sample size. Although the data showed medium effect sizes independent of the population tested, and the characteristics of the sample were highly aligned with the broader population in the NYC metropolitan area, it should not be assumed that this sample capture the full scale of the knowledge-intensive industries in general. While multiple sampling methodologies were utilized for both survey data collection, the sample used in this study might be somewhat skewed toward entrepreneurs who were more publicly visible.

10. Conclusion

In sum, this article introduces a communication perspective in understanding early stage entrepreneurs' engagement behaviors with mentors during foundational stages. The identification of the factors influencing media use and the outcomes of media use among entrepreneurs during foundational stages is a primary contribution of this work. Although communication, taken as a general reference to the occurrence of information exchange, has been included in many prior studies on inter-organizational knowledge flow [68], an exploration of where such exchanges are happening and what contributes or impedes such exchanges offers insights for further theorization of resource acquisition.

10. References

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